WHAT IS CLAIMED IS:

1. A power transmission mechanism comprising:

a flexible power transmission element;

a pair of a drive pulley and a driven pulley on which the flexible power transmission element is wound, each said pulley having a pin-embedding hole formed to extend from the outer circumferential thereof toward the center thereof, and a slit elongated in the circumferential direction of the pulley to extend to opposite sides of the embedding hole and communicating with the embedding hole; and

a pair of columnar or tapered anchor pins each having a path hole penetrating the anchor pin across the lengthwise direction thereof to receive the flexible power transmission element inserted therein,

wherein each said anchor pin receiving the flexible power transmission element in the path hole thereof is embedded in the embedding hole of the associated pulley under pressure, and the flexible power transmission element is thereby held on the pulley.

2. The power transmission mechanism according to claim 1 wherein the anchor pin is made of an elastic material and reduces its diameter when compressed.

3. The power transmission mechanism according to claim 1 wherein the outer diameter of the anchor pin is larger than the inner diameter of the embedding hole of the pulley.

4. The power transmission mechanism according to claim 1 wherein the slit of the pulley extends substantially parallel with a tangential line of a point on the outer circumferential surface of the pulley.

5. The power transmission mechanism according to claim 1 wherein the path hole of the anchor pin includes a slit portion extended along the axial direction of the anchor pin to permit the path hole to reduce the diameter thereof when inserted in the embedding hole under pressure.

6. The power transmission mechanism according to claim 5 wherein the slit portion of the path hole in each said anchor pin extend to one or both of the upward direction and the downward direction along the axial direction of the anchor pin.

7. The power transmission mechanism according to claim 6 wherein the slit portion extends upward along the axial direction of the anchor pin and penetrates the top surface of the anchor pin to divide it.

8. A power transmission mechanism comprising:

a flexible power transmission element; and

a pair of a drive pulley and a driven pulley on which the flexible power transmission element is wound,

wherein at least one of two spans of the flexible power transmission element spanning between the pair of pulleys is covered by a hollow elongate member, or cut and connected by a solid elongate member.

9. The power transmission mechanism according to claim 8 wherein both of the two spans of the flexible power transmission element are cut and connected by solid elongate members.

10. The power transmission mechanism according to claim 8 wherein one of the two spans of the flexible power transmission element is cut and connected by a solid elongate member, and the other is covered by a

hollow elongate member.

11. The power transmission mechanism according to claim 8 wherein the hollow elongate member is secured to the flexible power transmission element passing therein at a plurality of positions.

12. The power transmission mechanism according to claim 8 further comprising a support member permitting the hollow elongate member or the solid elongate member to pass slidably therethrough to support the same.

13. The power transmission mechanism according to claim 12 wherein a plurality of said support members are provided between the pair of pulleys.

14. The power transmission mechanism according to claim 12 wherein the support member is a disk-shaped member having a plurality of holes capable of receiving the hollow elongate member or the solid elongate member slidably.

15. The power transmission mechanism according to claim 12 wherein the support member is secured inside a pipe-shaped member.

16. A manipulator having a work unit, connector unit and a control unit to activate the work unit under a control command given from the control unit to the work unit through the connector unit, comprising:

a power transmission mechanism for transmitting a control command from the control unit to the work unit; and

a driving device for driving the power transmission mechanism, and having an eccentric mass about the connector unit,

wherein the power transmission mechanism includes a flexible power transmission element, and a pair of a drive pulley and a driven pulley on which the flexible power transmission element is wound, and

wherein the drive pulley and the driven pulley are oriented to make a twist between the rotation axes thereof to position the center of gravity of the driving device as the eccentric mass about the connector unit in a vertically lower area of the connector unit when the manipulator takes the basic attitude thereof.

17. The manipulator according to claim 16 wherein the arrangement for degrees of freedom of motion includes a common rolling axis by the connector unit, a bent axis permitting rotation in an intermediate aslant direction between the yawing axis for permitting rotation in the lateral direction and the pitching axis permitting vertical rotation, and a rolling axis.

18. The manipulator according to claim 16 wherein the twist angle between the rotation axis of the drive pulley and the rotation axis of the driven pulley is adjustable.

19. The manipulator according to claim 16 wherein the driving device includes a drive motor for driving the power transmission mechanism, and the center of gravity of the drive motor about the connector unit is located below the connector unit.

20. The manipulator according to claim 16 wherein the twist angle between the rotation axis of the driven pulley and the rotation axis of the drive pulley is approximately 45 degrees.